

### ABSTRACT

A DNA vaccine suitable for eliciting an immune response against cancer cells comprises a DNA construct operably encoding a cancer-associated Inhibitor of Apoptosis-family protein and an immunoactive gene product, such as a cytokine or a ligand for a natural killer cell surface receptor, in a pharmaceutically acceptable carrier. A preferred cytokine is CCL21. Preferred ligands for a natural killer cell surface receptor include human MICA, human MICB, human ULBP1, human ULBP2, and human ULBP3. The cancer-associated Inhibitor of Apoptosis (IAP)-family protein is preferably a survivin protein or livin protein. Method of inhibiting tumor growth by administering the vaccine of the invention to a mammal is also described.